IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of:	) MMB Docket No.: **1776-0035**
	)
Inventor: **Neville et al.**	) Xerox Docket No.: **D/A 2554**
	)
Application No.: **10/648,414**	) Examiner: **Melvin H. Pollack**
	)
Filed: **August 26, 2003**	) Group Art No.: **2145**
	)
For: **Peripheral Device Diagnostic**	) Confirmation No.: **4003**
Method And Architecture	)

BRIEF ON APPEAL

Hon. Commissioner of Patents and Trademarks
Alexandria, VA 20231

Sir:

This is an appeal under 37 CFR § 41.31 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the final rejection of the claims 1-22 of the above-identified patent application. These claims were finally rejected in an Office Action mailed on December 7, 2007. A Notice of Appeal with a Request for a Pre-Brief Conference was filed on March

7, 2008. A decision from the panel was received on March 20, 2008. This brief is being filed together with the $500.00 fee required under 37 CFR § 41.20(b)(2) within the two month period given for the filing of an appeal brief following the filing of a notice of appeal. Thus, Applicant submits that no extension of time for the filing of this brief and fee is required, however, if any extension of time is necessary, Applicant hereby petitions for such an extension and authorizes payment of any fees that may be due to Account No. 24-3700, but not to include any payment of issue fees.

(1) REAL PARTY IN INTEREST

Xerox Corporation of Norwalk, Connecticut is the assignee of this patent application, and the real party in interest.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to this application serial number 10/648,414.

(3) STATUS OF CLAIMS

Claims 1-22 are pending in the application. These claims have been twice rejected, and are being appealed.

Each of the appealed claims 1-22 is shown in the Claims Appendix attached to this Appeal Brief.

(4) STATUS OF AMENDMENTS

Appellant has filed no amendments subsequent to the Final Office Action mailed December 7, 2007.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a method for performing diagnostics on a computer peripheral device. The method includes coupling a computer executing a web browser to a backend server via a communication link *Specification*, p. 3, lines 3-4; p. 6, lines 17-22; p. 9, lines 8-9; FIG. 1, reference number 110; FIG. 2, reference number 204. A peripheral device HTTP message having peripheral device functionality information is constructed and sent to the web browser from a web server executing in a peripheral device, which is coupled to the computer. *Specification*, p. 3, lines 4-7; p.7, lines 10-20; p. 9, lines 10-14; FIG. 1, reference number 120; FIG. 2, reference numbers 206, 208, 210. The peripheral device HTTP message is forwarded from the web server to the backend server. *Specification*, p. 7, lines 20-22; p. 9, lines 15-16; FIG. 1, reference numbers 140, 150, 160; FIG. 2, reference number 212. The backend server constructs and transmits to the peripheral device one of a directive web page requesting more information from the peripheral device and a human readable web page that contains diagnostic results. *Specification*, p.8, lines 1-12; p. 9, line 17 to p. 10, line 7; FIG. 2, reference numbers 214, 216, 218, 220, 224. The web server automatically responds to a directive web page received at the web server with another peripheral device HTTP message comprising

functionality information. *Specification*, p. 8, lines 12-18; p. 10, lines 3-7; FIG. 2, reference number 222. The backend server and peripheral device iteratively communicate with each other until the human readable web page is constructed by said backend server. *Specification*, p. 8, lines 16-18; p. 10, lines 7-8; FIG. 2, reference numbers 222, 224.

Independent claim 6 is directed to a method for performing diagnostics on a computer peripheral device. The method includes coupling a computer executing a web browser to a backend server via a communication link. *Specification*, p. 3, lines 3-4; p. 6, lines 17-22; p. 9, lines 8-9, FIG. 1, reference number 110; FIG. 2, reference number 204. A peripheral device HTTP message having peripheral device functionality information is constructed and sent to the web browser from a web server operating within a peripheral device that is coupled to the computer. *Specification*, p. 3, lines 4-7; p.7, lines 10-20; p. 9, lines 10-14; FIG. 1, reference number 120; FIG. 2, reference numbers 206, 208, 210. The web browser forwards the peripheral device HTTP message to said backend server. *Specification*, p. 7, lines 20-22; FIG. 1, reference numbers 140, 150, 160; p. 9, lines 15-16; FIG. 2, reference number 212. In response to the peripheral device HTTP message having insufficient information, a directive web page is constructed and transmitted to the peripheral device requesting more information. *Specification*, p. 8, lines 1-3, 6-12, p. 10, lines 3-7; FIG. 2, reference numbers 216, 218, 220. In response to the peripheral device HTTP message having sufficient information, a human readable web page indicating diagnostic results is constructed and transmitted to the web browser. *Specification*, p. 8,

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lines 1-6; p. 9, line 19 to p. 10, line 2; FIG. 2, reference numbers 216, 218, 224.

Another peripheral device HTTP message having functionality information is provided as an automatic response to a directive web page received from the backend server. *Specification*, p. 7, lines 7-10, 12-15; p. 10, lines 4-7, FIG. 2, reference numbers 208, 210. Iterative communication continues between the backend server and the peripheral device until the human readable web page is constructed by said backend server. *Specification*, p. 8, lines 16-18; p.9, line 18 to p. 10, line 2; FIG. 2, reference number 222. Construction and transmission of iterative responses to peripheral HTTP messages occurs with reference to a rules based diagnostic database operating with said backend server. *Specification*, p. 7, lines 4-9; p. 8, lines 1-3, 6-12, reference number 220.

Independent claim 12 is for a system that performs diagnostics on a computer peripheral device. The system includes a backend server, *Specification*, p. 7, lines 1-9; FIG. 1, reference number 160, and a computer executing a web browser, *Specification*, p. 6, lines 17-22, FIG. 1, reference number 118. A communication link is coupled between the computer and the backend server. *Specification*, p. 7, lines 1-3; FIG. 1, reference numbers 140, 150. A peripheral device having a web server is coupled to the computer. *Specification*, p. 6, lines 17-18; p. 7, lines 10-12; FIG. 1, reference numbers 120, 124. The web server is adapted to construct and send a peripheral device HTTP message to the web browser comprising peripheral device functionality information. *Specification*, p. 6, lines 4-10; p. 7, lines 10-12 and lines 18-22. The web browser is adapted to forward the peripheral device HTTP message to the

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backend server. *Specification*, p. 6, lines 4-5; p. 7, lines 1-4; FIG. 1, reference numbers 140, 150. The backend server is adapted to, in response to receiving the peripheral device HTTP message, construct and transmit a directive web page to the peripheral device requesting more information in response to said peripheral device HTTP message having insufficient information, *Specification*, p. 6, lines 12-14; p. 7, lines 4-9; p. 8, lines 6-12; p. 10, lines 3-7; FIG. 2, reference number 220, or a human readable web page to the web browser indicating diagnostic results in response to the peripheral device HTTP message having sufficient information. *Specification*, p. 6, lines 10-12; p. 8, lines 3-6; p. 9, line 19 to p. 10, line 2; FIG. 2, reference number 24. The web server is also adapted to respond automatically to a directive web page with another peripheral device HTTP message having functionality information. *Specification*, p. 6, lines 10-14; p. 8, lines 12-14; p. 10, lines 3-7. The backend server and the peripheral device communicate iteratively until the human readable web page is constructed by the backend server. *Specification*, p. 8, lines 16-18; p. 10, lines 7-8; FIG. 2, reference number 222. No means plus function limitations are present in any system claims being appealed.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The first ground of rejection to be reviewed on appeal is whether claims 1-3, 5-9, 12-14, and 16-20 are unpatentable under 35 U.S.C. 103(a) over Assauchi (U.S. Patent Number 7,013,410, hereinafter "Assauchi") in view of Skaanning et

al. (U.S. Patent Number 6,879,973, hereinafter "Skaanning") and Wolff (U.S. Patent Number 6,209,048, hereinafter "Wolff").

The second ground of rejection to be reviewed on appeal is whether claims 4 and 15 are unpatentable under 35 U.S.C. 103(a) over Assauchi and Skaanning and Wolff, and in further view of Webb et al. (U.S. Patent Number 5,727,135, hereinafter "Webb").

The third ground of rejection to be reviewed on appeal is whether claims 11 and 22 are unpatentable under 35 U.S.C. 103(a) over Assauchi and Skaanning and Wolff, and in further view of Lozano et al. (U.S. Patent Number 7,168,003, hereinafter "Lozano").

(7) ARGUMENT

The rejected claims do not stand or fall together.

First Ground of Rejection under 35 USC 103: Whether the cited combination of Assauchi, Skaanning, and Wolff arrive at a peripheral diagnostic system or method that communicates between a backend server and a web server in a peripheral through a browser executing in a computer coupled to the peripheral as required by claims 1-3, 5-9, 12-14, and 16-20.

CLAIMS 1-3, 5-9, 12-14, and 16-20

In order to establish a *prima facie* case of obviousness the Examiner must rely upon facts gleaned from the cited references. *MPEP* 2142. Knowledge of the applicant's disclosure must be put aside to avoid the use of impermissible

hindsight in manipulating the references to arrive at the claimed invention. *Id.* As set forth in more detail below, the facts presented in the cited references do not arrive at a backend server and a web server in a peripheral coupled to a computer executing a web browser communicating with one another by forwarding messages through the browser. Therefore, the Examiner has not established that Applicant's claimed invention is an obvious combination of known elements or an obvious modification of a known system or method.

The Examiner relies upon the three way combination of U.S. Patent No. 7,013,410 to Assauchi (hereinafter "Assauchi") in view of U.S. Patent No. 6,879,973 to Skaanning et al. (hereinafter "Skaanning") and U.S. Patent No. 6,209,048 to Wolff (hereinafter "Wolff"). The Assauchi reference uses the word "browser" only once. The word is used to describe a representative program executing in a computer. The computer is coupled directly to a printer and is also coupled through the internet to a support center. *Assauchi,* col. 4, lines 15-20; FIG. 1. Communication between the user and the support center and between the printer and the support center occurs, however, through the client side agent. *Assauchi,* col. 7, lines 53-67; col. 8, lines 29-41; FIG. 10. Nowhere is the client side agent identified as being a browser. Additionally, Assauchi does not disclose any communication between the client side agent and the server side agent within the HTTP protocol. More importantly, Assauchi does not teach that a web server executing in a peripheral device coupled to a computer executing the browser sends a peripheral device HTTP message to the web browser and that message is forwarded to the backend server or that an automatic response

with another peripheral device HTTP message having functionality information occurs in response to a directive web page, which was constructed and send by the backend server, being received at the web server as required by claims 1, 6, and 12.

Skaanning discloses a system in which a customer uses a web-browser executing in a computer coupled to a printer to interact with a diagnostic system operating at a web server to troubleshoot printer problems. The *customer* may obtain data from either the printer or the printer server to respond to the diagnostic system through the web-browser/web server link. *Skaanning,* col. 8, line 58 - col. 9, line 5; col. 9, lines 16-21; FIG. 3. This description means the data obtained from the printer or the printer server is in human readable form and entered by the customer into the queries and/or directions, which are also in human readable form, obtained from the web server through the browser. Thus, Skaanning teaches that a person can use a web browser to relay the *content* of messages received at a web browser from either a peripheral device or a diagnostic system. The reference does not teach, however, that the web browser relays the received messages themselves as required by the claimed invention.

Moreover, Skaanning does not show the web server executing in a peripheral. In fact, the only server on the side of the computer executing the web browser is a printer server 209. That server, however, executes outside of the printer 210. Thus, Skaanning only teaches two party communication between the web server and the web browser/customer *or* between the printer and the web browser/customer. Consequently, Skaanning does not teach that a web server

executing in a peripheral device coupled to a computer executing the browser

sends a peripheral device HTTP message to the web browser and that message

is forwarded to the backend server or that an automatic response with another

peripheral device HTTP message having functionality information occurs in

response to a directive web page, which was constructed and sent by the

backend server, being received at the web server as required by claims 1, 6, and

12. Combining the two references does not make the missing limitations appear

without some imaginative application of Applicant's specification. Such usage is

impermissible hindsight.

Wolff does not save the deficient combination. In Wolff, a peripheral is

provided with a web server, which enables users to communicate and obtain

data directly from the peripheral device through forms identified by Universal

Resource Locators (URLs). The web server in Wolff provides direct

communication with other computers through the internet. This feature enables

the web server to dispense with the need for a host computer. *Wolff*, col. 10,

lines 25 – 33. In fact, the web server of Wolff was developed to address the

issues raised by having a peripheral device communicate through a host

computer to which the peripheral device is attached. *Wolff*, col. 2, lines 34-58.

Thus, one of ordinary skill would apply Wolff by directly coupling the web server

in the peripheral to a network to communicate with, not through, a web browser

in a remote computer as shown in FIG. 2. Consequently, Wolff teaches away

from the invention of claims 1 and 6. In fact, applying the teachings of Wolff to

the combination of Assauchi and Skaanning would result in the web server of the

peripheral being coupled to the internet for direct communication with the backend server to enable the backend server to control the peripheral remotely and iteratively obtain the necessary data for diagnosing the peripheral. The web browser and its operation would, therefore, be superfluous and removed from the system all together.

The Examiner, however, adds Wolff to the Assauchi/Skaanning combination in a manner that retains the web browser because he is using Applicant's specification as a blueprint. Such usage is impermissible and cannot properly support a *prima facie* case of obviousness. What the Examiner does is add the peripheral having a web server to the combination of Assauchi and Skaaning to create a system in which the computer executing the web browser is coupled to the peripheral having the web server through one network and the computer with the browser is also coupled to the backend server through the same or another network. Even if this system could be obtained without Applicant's specification, though Applicant strongly maintains it cannot be so obtained, the combination still fails to forward *the* peripheral device HTTP message from the web server to the backend server as required by claims 1, 6, and 12. This failure arises because the customer using such a system forwards the *content* of a message, but not the message itself. The difference is distinctive because forwarding of the peripheral device HTTP message as required by claims 1, 6, and 12 enables the information gathering and analysis to occur without human intervention. Thus, claims 1, 6, and 12 are patentable over the cited combination of Assauchi, Skaanning, and Wolff. Because claims 2-5, 7-11,

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and 13-20 include these limitations missing from the cited combination, they are also patentable.

Second Ground of Rejection under 35 USC 103: Whether Webb discloses the missing limitation of peripheral device functionality information with a PostScript function interface in response to a call from a web server as required by claims 4 and 15.

CLAIMS 4 and 15

In the final office action, the Examiner asserts that Webb teaches the use of a PostScript interface to obtain functionality information from a printer in response to a call from a web server executing in a peripheral device. Applicant disagrees as Webb only discloses a printer driver 55 that may be implemented in PostScript. *Webb*, col. 8, lines 37-53. An interface implemented on a tool bar of a host computer may be used to request printer configuration data and the printer driver delivers these data to the interface. *Webb*, col. 8, line 67 to col. 9, line 8. The tool bar interface is not a web server. Therefore, the printer driver does not respond to a call from a web server executing in a peripheral. Only by using Applicant's specification as a blueprint can the Examiner conjure a call from the web server of Wolff to the printer driver of Webb. Such use of Applicant's specification is impermissible and, consequently, claims 4 and 15 are patentable over the cited combination.

Third Ground of Rejection under 35 USC 103: Whether Lozano discloses the missing limitation that the peripheral device functionality information in the peripheral device HTTP message from the web server executing in the peripheral includes data in the XML format as required by claims 11 and 22.

CLAIMS 11 and 22

Claims 11 and 22 require the peripheral device functionality information in the peripheral device HTTP message from the web server executing in the peripheral to include data in the XML format. The Examiner asserts that Lozano renders such a limitation obvious. The portion of Lozano cited by the Examiner for teaching XML communication is col. 10, line 25 to col. 12, line 30 and Appendix A. This section, however, does not disclose communication *from* a peripheral, but *to* a client program 100 executing on a client computer coupled to a peripheral. Specifically, printer driver data are provided in an XML format from a printer vendor's database to a program 100 executing on a client computer. *Lozano*, col. 5, lines 4-8. The Examiner fails to show how XML data sent from a vendor's database to a program executing in a client computer can be combined with a web server in a peripheral to arrive at a peripheral device message having XML data that is sent from the web server to a web browser. The only teaching that enables the Examiner to argue that a peripheral provides data in an XML format, and, more specifically, to assert that the web server of Wolff can be modified to send a peripheral device message to a web browser that includes data in the XML format is Applicant's specification. Such use of Applicant's specification is impermissible hindsight and cannot properly support the

obviousness rejection of claims 11 and 22.

CONCLUSION

As set forth above, the cited references cannot be combined to arrive at the invention set forth in claims 1-22 unless Applicant's specification is used to modify the components of those references. The Examiner has failed to demonstrate that the cited references possess the evidence necessary to construct a *prima facie* case for obviousness. Therefore, the Board of Appeals is respectfully requested to reverse the rejection of pending claims 1-22.

Respectfully submitted,
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(8) CLAIMS APPENDIX

1. A method for performing diagnostics on a computer peripheral device, said method comprising:

coupling a computer executing a web browser to a backend server via a communication link;

constructing and sending a peripheral device HTTP message to said web browser from a web server executing in a peripheral device coupled to the computer, the peripheral device HTTP message comprising peripheral device functionality information;

forwarding said peripheral device HTTP message from said web server to said backend server;

constructing and transmitting from said backend server to said peripheral device one of a directive web page requesting more information from the peripheral device and a human readable web page that contains diagnostic results;

automatically responding to a directive web page received at the web server with another peripheral device HTTP message comprising functionality information; and

iteratively communicating between said backend server and said peripheral device until said human readable web page is constructed by said backend server.

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2. The method of Claim 1, said peripheral device being an image reproduction device.

3. The method of Claim 2, said image reproduction device being a printer.

4. The method of Claim 1 further comprising:

generating said peripheral device functionality information with a PostScript function interface in response to a call from said web server.

5. The method of Claim 1, said communication link being the World Wide Web.

6. A method for performing diagnostics on a computer peripheral device, said method comprising:

coupling a computer executing a web browser to a backend server via a communication link;

constructing and sending a peripheral device HTTP message to said web browser from a web server operating within a peripheral device that is coupled to the computer, the peripheral device HTTP message comprising peripheral device functionality information;

forwarding said peripheral device HTTP message to said backend server via said web browser;

constructing and transmitting a directive web page to said peripheral device requesting more information in response to said peripheral device HTTP message having insufficient information;

constructing and transmitting a human readable web page indicating diagnostic results to said web browser in response to said peripheral device HTTP message having sufficient information;

automatically responding to a directive web page received from the backend server with another peripheral device HTTP message comprising functionality information;

iteratively communicating between said backend server and said peripheral device said human readable web page is constructed by said backend server; and

constructing and transmitting iterative responses to peripheral HTTP messages with reference to a rules based diagnostic database operating with said backend server.

7. The method of Claim 6 further comprising: executing code in said directive web pages to manipulate features of said peripheral device.

8. The method of Claim 1, said diagnostic results identifying a user executable solution to a problem corresponding to data in the peripheral device HTTP message.

9. The method of Claim 1, said diagnostic results identifying a user-replaceable peripheral device component that can be replaced to solve a problem corresponding to data in the peripheral device HTTP message.

10. The method of Claim 1, said web pages being constructed with Hyper Text Markup Language (HTML).

11. The method of Claim 1, said peripheral device functionality information in said peripheral device HTTP message including data in Extensible Markup Language (XML) format.

12. A system for performing diagnostics on a computer peripheral device, said system comprising:

a backend server;

a computer executing a web browser;

a communication link coupled between said computer and said backend server;

a peripheral device coupled to said computer, the peripheral device including a web server, said web server adapted to construct and send a peripheral device HTTP message to said web browser comprising peripheral device functionality information;

said web browser being adapted to forward said peripheral device HTTP message to said backend server, and

said backend server being adapted to, in response to receiving said peripheral device HTTP message, construct and transmit a directive web page to said peripheral device requesting more information in response to said peripheral device HTTP message having insufficient information, or a human readable web page to said web browser indicating diagnostic results in response to said peripheral device HTTP message having sufficient information, and said web server being adapted to respond automatically to a directive web page with another peripheral device HTTP message comprising functionality information, and the communication between said backend server and said peripheral device iteratively continues until said human readable web page is constructed by said backend server.

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13. The system of Claim 12, said peripheral device being an image reproduction device.

14. The system of Claim 13, said image reproduction device being a printer.

15. The system of Claim 12, said peripheral device further comprising a PostScript function interface adapted to generate said peripheral device functionality information in response to a call from said web server.

16. The system of Claim 12, said communication link comprising the World Wide Web.

17. The system of Claim 12, said backend server comprising a rules-based diagnostic database adapted to indicate iterative responses to peripheral device HTTP messages.

18. The system of Claim 12, said directive web pages comprising code executable by said peripheral device to manipulate features of said peripheral device.

19. The system of Claim 12, said diagnostic results identifying a user executable solution to a problem corresponding to peripheral device functionality information.

20. The system of Claim 12, said diagnostic results identifying a user-replaceable peripheral device component, replacement of which solves a problem corresponding to peripheral device functionality information.

21. The system of Claim 12, said web pages being constructed with Hyper Text Markup Language (HTML).

22. The system of Claim 12, said peripheral device functionality information including data in Extensible Markup Language (XML) format.

(9) EVIDENCE APPENDIX

No evidence was submitted under rules 1.130, 1.131, or 1.132.

Additionally, no other evidence has been entered in the record by the Examiner

upon which the Applicant relies.

(10) RELATED PROCEEDINGS APPENDIX

No proceedings were identified in the Related Appeals and Interferences

presented above. Therefore, no decisions of a court or the Board are contained

herein.